

Offshoring research directions

31-8-2012



Hugo Velthuijsen

NOT-12-02



Hanze Kenniscentra
University of Applied Sciences

Ondernemerschap

Offshoring research directions

Hugo Velthuisen

Lectoraat New Business & ICT

Instituut voor Communicatie, Media en IT

Kenniscentrum Ondernemerschap

NOT-12-02

31 augustus 2012

Abstract

Outsourcing and offshoring provide companies with ways to achieve their business objectives better or more cost effectively or despite a shortage of specific resources. From a research point of view, outsourcing and offshoring have mostly been studied as something that large companies do, not small and medium enterprises (SMEs). However, the business rationale for outsourcing and offshoring appears to be at least as compelling for SMEs as they are for large companies.

In this memorandum, the case is made that SMEs are theoretically good candidates for developing an outsourcing and offshoring strategy, which practice actually supports. Furthermore, based on a review of some existing scientific literature on outsourcing and offshoring for mostly large companies, research directions are outlined for applied research that would be relevant for SMEs.

Inhoud

Introduction.....	1
The network economy and (offshore) outsourcing	1
IT and Business Process Outsourcing research and practice	3
SMEs and (offshore) outsourcing.....	4
Innovation and offshore outsourcing.....	5
Directions for applied research	6
References.....	8

Introduction

Outsourcing and offshoring provide companies with ways to achieve their business objectives better or more cost effectively or despite a shortage of specific resources. From a research point of view, outsourcing and offshoring have mostly been studied as something that large companies do, not small and medium enterprises (SMEs). However, the business rationale for outsourcing and offshoring appears to be at least as compelling for SMEs as they are for large companies.

In this memorandum, the case is made that SMEs are theoretically good candidates for developing an outsourcing and offshoring strategy, which practice actually supports. Furthermore, based on a review of some existing scientific literature on outsourcing and offshoring for mostly large companies, research directions are outlined for applied research that would be relevant for SMEs.

The network economy and (offshore) outsourcing

In 1937, Coase came up with a theory about why companies have come to exist as organizations where people who come together to collaborate on a certain economic endeavour (Coase, 1937). This theory (Transaction Cost Theory, or TCT) states roughly that activities should be performed within a company when the costs of acquiring the output of such activities from the market place are higher than the costs of performing these activities within the company. For a long time, transaction costs drove companies to become bigger and bigger, integrating many functions and activities within the boundaries of the company.

The advent of information and communication technology has done a lot to change transaction costs. Nowadays, many activities are no longer done most effectively cost-wise within the company but rather by other parties outside the company. Economic indicators illustrate, in fact, that companies are relying more and more on work being done by other parties. Value chains are being disaggregated and intermediate inputs are forming an increasing share of all trade (Miroudot et al., 2009; Contractor et al., 2010). Strategy consultants have been telling companies that they have to focus on core competences and to re-allocate all activities that are not part of the core competences to outside parties (Prahalad & Hamel, 1990). Consequently, companies are required increasingly to work together in networks of companies, collaborating in relationships of varying degrees of duration and closeness. The resulting variation of the business world is called the network economy (e.g. Malone & Laubacher, 1998).

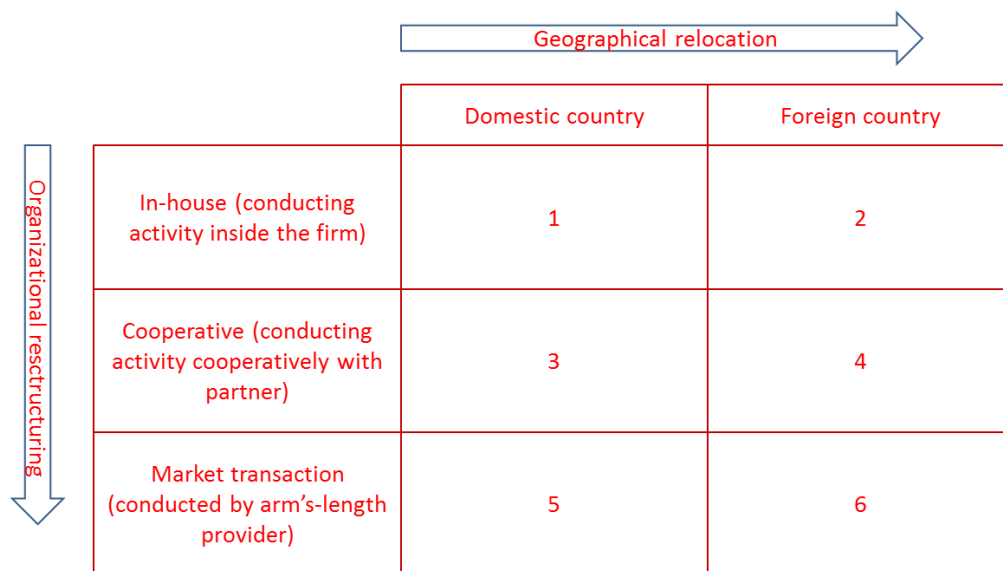
Much of the existing business and economics literature, however, is still aimed at monolithic organizations. Guidelines that help companies and their management to understand – and deal with – the network economy and its potential are much less common. The Center of Entrepreneurship¹ of the Hanze University of Applied Sciences addresses in her research the implications of the network economy and translates these into practical guidelines for entrepreneurs and managers.

The regional business environment in the Northern part of The Netherlands is dominated by SMEs. Results from existing business and economics literature do not necessarily apply to

¹ Actually, Center of Applied Research and Innovation Entrepreneurship in full.

SMEs: an SME is not a scale model of a large company (Devos et al., 2012). Therefore, the Center of Entrepreneurship (CoE) focuses specifically on novel applied research aimed at SMEs and translating existing academic research to the context of SMEs.

The network economy requires a company to rethink periodically if certain activities and business processes or parts of business processes should be performed within the company still, or whether alternatives outside the company have become more profitable. This is, in essence, a “*make or buy*” decision. Developments in relationship forms as seen in the practice of outsourcing have turned this in a “*make, buy, or ally*” decision. Activities may be handed over to another party where that activity is being performed at “*arm’s length*”, i.e. “*buy*”, or to a party that acts more closely in a partnership mode, i.e. “*ally*” (Contractor et al., 2010). Combined with the choice whether an activity should be best performed in the domestic country or in a foreign country (“*offshore*”), this leads to six choices for allocation of an activity (see Figure 1).



		Geographical relocation →	
		Domestic country	Foreign country
Organizational restructuring ↓	In-house (conducting activity inside the firm)	1	2
	Cooperative (conducting activity cooperatively with partner)	3	4
	Market transaction (conducted by arm’s-length provider)	5	6

Figure 1. Six allocation choices (Contractor et al., 2010).

Contractor et al. (2012) point out, furthermore, that companies are looking at an ever finer granularity of activities to be farmed out to other parties, including high-value ones or ones that are part of activities close to a company’s core competence, such as R&D. We will come back to the sourcing of R&D and innovation in a later section.

As is pointed out by Dyer and Singh (1998), arm’s length relationships do not create competitive edge as such, because they are likely to be available to any competitor. Cooperative relationships, therefore, are desirable if and when they can create value that does provide a competitive edge dedicated to the client. Such relationships allow providers to develop solutions that are exclusive to the client, but also to learn about the idiosyncratic systems, processes, procedures, etc. of the clients and the information that is not easily codifiable and to adapt to them to create a more valuable service.

To a large extent, IT and communication technology have brought on the emergence of the network economy (Fingar, 2006). But IT itself has been leading the change in finding new levels of disaggregation. The practice of outsourcing, and especially the practice of IT and

business process outsourcing (IT-BPO), has given rise to an extensive body of research. The area of IT-BPO warrants our special attention. Firstly, it coincides most closely with the research agenda of this professorship (business & IT). Secondly, the extensive practice and theory in IT-BPO may well serve as a basis for applied research in the more generalized domain of SMEs and the network economy.

IT and Business Process Outsourcing research and practice

Hätönen and Eriksson (2009) have done an excellent job of organizing more than 30 years worth of research and practice of outsourcing (see Figure 2). The initial objective of outsourcing by a client company was primarily cost saving. And, because from a Western perspective, wages are lower in most other countries, outsourcing rapidly turned into offshore outsourcing, or offshoring, i.e. outsourcing to foreign countries. Such outsourcing deals were mostly transactional. From a theoretical point of view, research was mostly based on Transaction Cost Theory (TCT)). During the 90s, the focus turned to finding external resources that were hard to come by within the company itself, whereas the activities that were transferred to another party remained basically the same. Research adopted theory from the so called Resource Based View (RBV) to explain emerging practice. In the current millennium, outsourcing became also a quest for finding parties that could help transform activities and processes in such a way that they created more value. A recent industry report calls this the change from “*running the business*” (RTB) to “*changing the business*” (CTB) (Card & Jones, 2012). During this time, outsourcing deals had to become less transactional and more partner-based, culminating for now in relationships aimed at mutual development. Research included several other theories to explain the new developments.

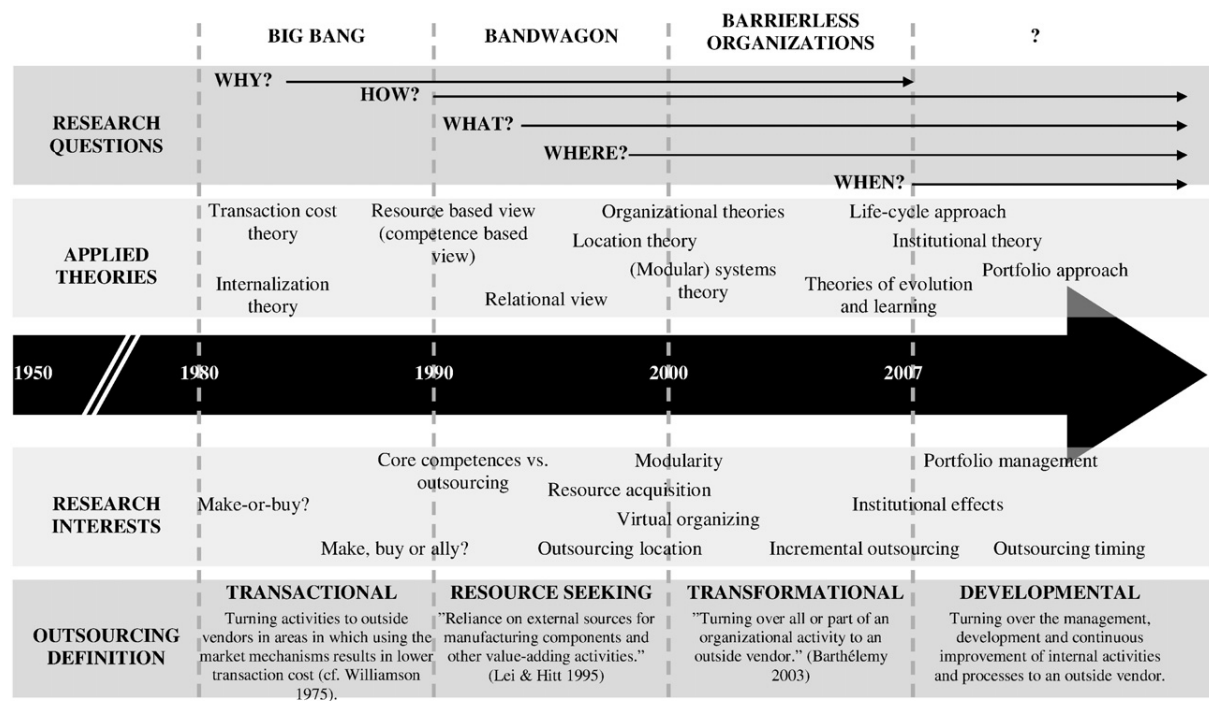


Figure 2. Review of outsourcing research (Hätönen & Eriksson, 2009).

This development from the provider's point of view has a similar history, but a possible different outcome (Mahaboob, 2012). At first, providers were asked to build IT following

design and specifications from the customer. Then, they were also asked to manage the IT and business processes. Now the next step would be to exploit the advances of cloud computing and to develop new products and services where the providers own the IT and support business processes according to best practices using the extensive knowledge on and insight in business processes gained over decades of building and managing solutions for their clients. This would involve moving from the current hourly rates-based business model to another when products and services are developed at the provider's own entrepreneurial risk.

These two visions of the future differ significantly in the importance that stakeholders put on partnership. From a client perspective, partnership becomes increasingly important. From a provider perspective, providers will aim to gain more independence and looser relationships. Most likely, both will happen. For clients, the choice between “*make, buy, or ally*” will be affected by a substantial increase of cost-effective, cloud-based, best practices solutions in the market. However, there will remain a need for partner-based relations to create value that provides a competitive edge beyond what is readily available in the market.

SMEs and (offshore) outsourcing

SMEs are not immune to the consequences of the network economy. SMEs are also subject to a globalizing economy, both as an opportunity to enter new markets and as a threat of new entrants from abroad. And SMEs will be confronted with shortages of all kinds of skilled employees, among which technicians (see Figure 3) and, more specifically, IT specialists². Large companies can draw new talent easier than SMEs, if only because of being bigger and therefore – usually – better known. SMEs will be hard pressed to come up with ways to address their expected resource issues.

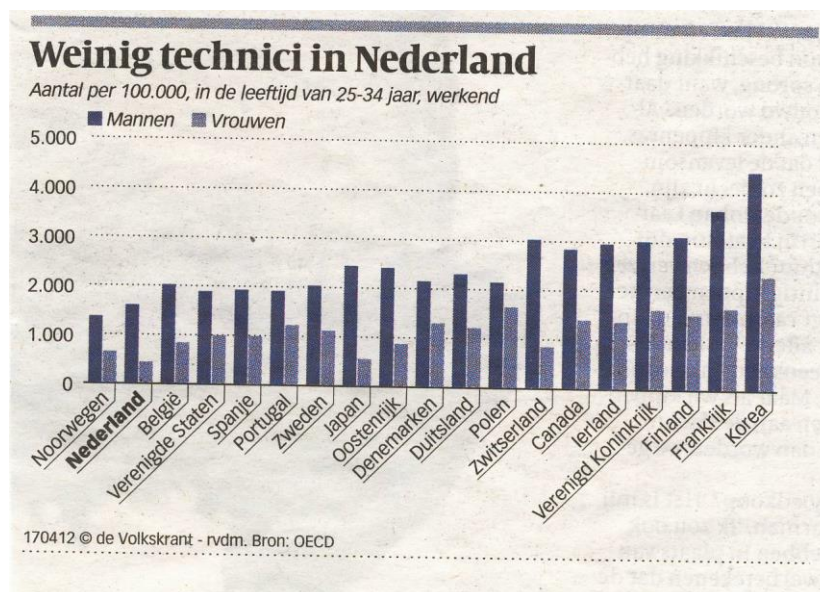


Figure 3. Share of technicians in the labour market (Volkskrant, April 17, 2012).

These observations hold for most SMEs individually. But when we generalize, it points to a potentially very alarming situation. Especially in the Northern part of the Netherlands, the

² ICT~Office, see, for instance <http://www.ictoffice.nl/index.shtml?id=11486&ch=ICT>

economy is dominated almost exclusively by SMEs. Nationally and internationally over the last decades, SMEs have become much more essential to innovation (Reynolds et al, 1999, Clifton et al., 2010). And although there may not be agreement on exactly how dependent innovation is on technology, it is clear that SMEs having access to technology, and therefore to skilled technicians, is very important for the economy to stay innovative and competitive.

Skilled technicians are abundantly available in the typical offshore countries such as India, China, and several Eastern European countries. These skilled technicians can be employed to help developing Dutch companies either by bringing them to work domestically³ or by transferring the work to a foreign country (offshore outsourcing).

In the current scientific literature on (offshore) outsourcing, large companies are dominant. However, (offshore) outsourcing is by no means the exclusive domain of large organizations. Oksanen (2011), Uimonen (2011), and Gellert & Velthuisen (2012) describe several SMEs in various NW European countries that have successfully built offshore outsourcing relationships with other SMEs in various other countries. Moreover, initial results show that SMEs may have an advantage over large companies in dealing with companies from another culture in a partner-based relationship. This serves not only as an example that (offshore) outsourcing is a viable alternative for SMEs, but also that theory and practice may turn out to be different from what is known to apply to large companies.

In general, the economies of scale are such for SMEs, that – more often than will be the case for large companies – a “*buy*” option will be much more feasible than an “*ally*” option. Gartner’s 2008-2009 report on trends in outsourcing (2008) indicate that the two main solutions to closing the existing gap of IT application in SMEs will be cloud computing and outsourcing. Of these, cloud computing offers the least opportunity to achieve a sustained competitive edge.

When discussing the network economy and its implications for SMEs specifically in relation to IT, one should be aware that the exposure of SMEs to IT may vary wildly. There are at least three categories to distinguish:

1. SMEs with IT as their core business (e.g., IT service providers)
2. SMEs which are highly dependent on IT, but IT is not their core business (e.g., on-line marketing service providers)
3. SMEs where IT is mostly incidental to the business.

It is to be expected that the value creation of (offshore) outsourcing will be highest for SMEs of the first two categories.

Innovation and offshore outsourcing

IT and BPO providers have been asked to contribute to ever earlier stages of the development process. At first, providers were only asked to build software and systems according to specifications prepared by the clients. Later, providers became involved in the design phase of the development process. Also, they were required to provide input in

³ More than 80% of R&D employees at Dutch technology firm ASML have a non-Dutch background.

continuous improvement of systems and processes as part of the responsibility of managing the systems and processes. Rarely are providers asked to come up with innovations themselves, but providers are starting to initiate and develop their own innovations, as seen during a recent trip visiting Indian IT and Tech providers and in market studies (e.g., QS Advisory, 2012).

Contractor et al. (2010) illustrate how R&D functions can be part of (offshore) outsourcing, but the examples given do not put offshore providers as participants in the process of creating new intellectual property, but rather as executors of voluminous and tedious testing work. For now, involving (offshore) outsourcing providers as partners in innovation appears to be a rather untried exercise.

Directions for applied research

Given the previous discussions, we arrive at a number of observations on the needs for applied research in the area of (offshore) outsourcing by SMEs.

1. Given the advent of the network economy, SMEs need to rethink regularly which parts of their business to make or to buy or to obtain in cooperative partnerships (to ally) to remain competitive in the global economy.
2. There is a shortage of well-trained employees to be expected, especially in technical disciplines. Most likely, SMEs will have a greater challenge to hire the right resources than larger companies. Thus, *“buy”* and *“ally”* decisions will become more important and more numerous for SMEs.
3. There is still a lot to learn about (offshore) outsourcing – especially as it applies to SMEs – around the basic questions What?, Why?, Where?, and How? (Hätönen & Eriksson, 2009), see also Figure 4.
4. IT drives innovation; innovation drives the economy; SMEs play an increasingly substantial role in innovation and economic growth. If SMEs in our region do not become more skilled in using resources from elsewhere, it will have serious consequences for the future economic growth of the region.
5. There is a need to help SMEs to understand better (offshore) outsourcing and to apply it successfully.

We built our case for doing applied research in the area of (offshore) outsourcing based on macro-economic considerations. However, applied research starts with a need that is explicitly felt by people active in the field, i.e., a need felt at the micro-economic level. Currently, we have not yet established if the need is felt explicitly, or if there is sufficient awareness. Therefore, any progress in this area should be preceded by investigating whether there is a real and urgent need, or maybe a lack of awareness. Basically, this investigation is a prerequisite and could be linked to the Why? question. Provided that an explicit need is established, the following research questions are apparent.

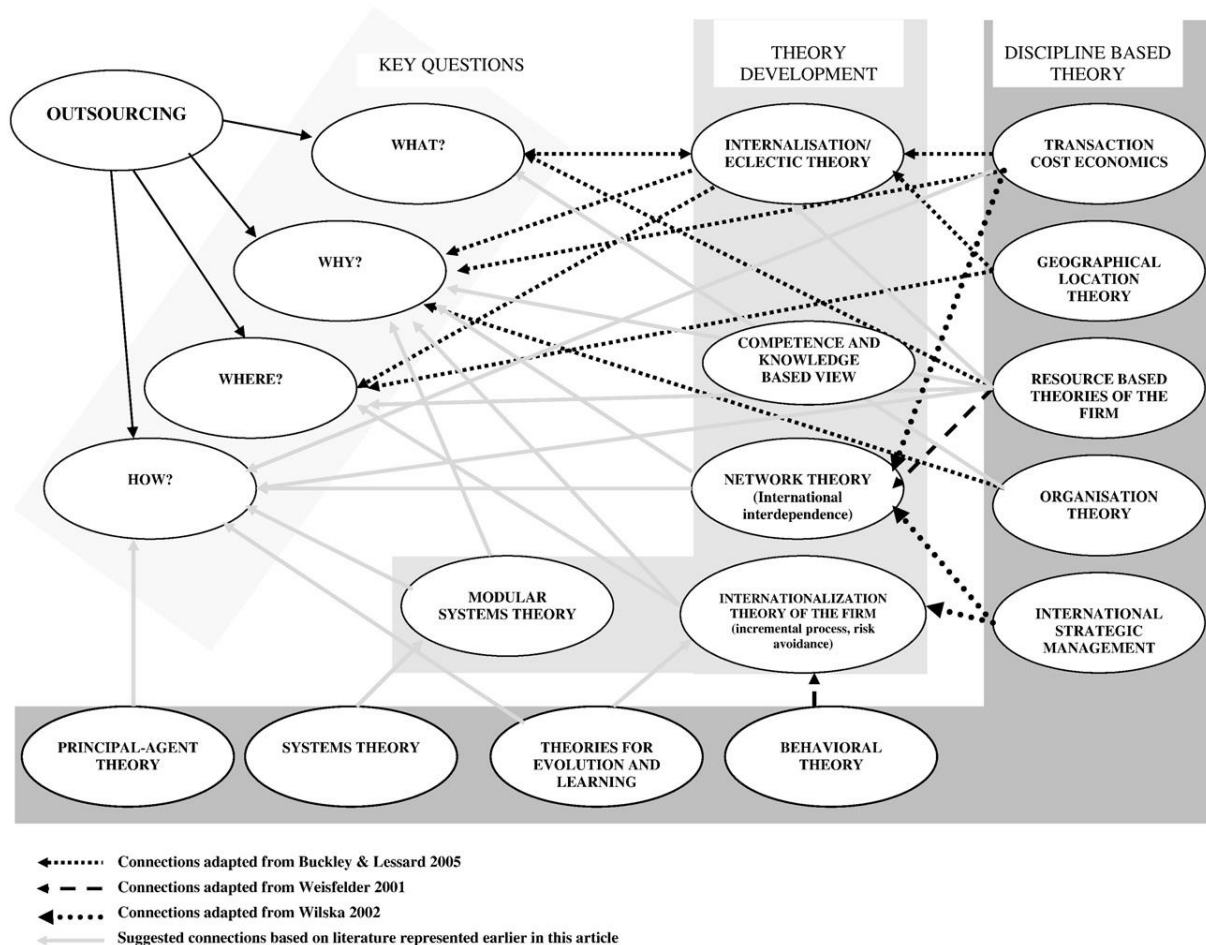


Figure 4. Key outsourcing questions (Hätönen & Eriksson, 2009).

Why?

- Do SMEs see benefit in an increased networked approach to their business?
- Do SMEs expect a (future) shortage of skilled employees?
- Do SMEs expect to be more involved in (offshore) outsourcing?
- Do SMEs have problems or needs w.r.t. (offshore) outsourcing?
- What are the differences between SMEs where IT is their core business, a key resource, or only incidental to the SME's business?
- Can we build a database of SMEs involved in (offshore) outsourcing for the purpose of more quantitative research?

What?

- Which activities lend themselves to be done by others ("buy" or "ally")?
- Which of these activities are available on the market ("buy") or should be sourced ("ally").

Where?

- How do SMEs find good providers or partners?
- Is there a business opportunity for linking SMEs to good providers or partners?
- Should an activity be performed domestically or in another country, and – in case of the latter – in which country?

How?

- What preparations are necessary?
- How can an SME get into an adequate contract?
- What is a good governance system?
- How should the performance be monitored?
- How should SMEs manage the relationship?
- What should an SME do to prepare for the situation where a provider or partner does not perform adequately? And what should an SME do when that happens?
- How do SMEs and their providers and/or partners handle developments that require change of the offered products and services?
- What knowledge or competences should an SME build or retain?
- Is there a business opportunity for supporting SMEs during the set up and maintenance of a “buy” or “ally” relationship?
- What should an SME do when the end of the contract gets nearer?
- How can SMEs employ (offshore) outsourcing providers as partners in innovation projects?

Many more questions can probably be formulated, but this will be left to a later stage.

References

- Bharadwaj, S.S.; Bhushan, K.; Saxena, C. & Halemane, M.D. (2010). Building a successful relationship in business process outsourcing: an exploratory study. *European Journal of Information Systems*, 19, 168–180.
- Brown, D. & Wilson, S. (2009). *The Black book of outsourcing: how to manage the changes, challenges, and opportunities*. New Jersey: Wiley & Sons.
- Bunyaratavej, K., Hahn, E.D. & Doh, J.P. (2007). International offshoring of services: a parity study. *Journal of International Management*, 13, 7-12.
- Business Week Magazine (2011). The mortgage of the future.
<http://www.businessweek.com/magazine/the-mortgage-of-the-future-11102011.html>.
accessed: 15th November 2011.
- Card, D. & Jones, S. (2012). Minefield? Or Greenfield? Challenges and opportunities for mid-tier sourcing clients. Information Services Group. White Paper.
- Carmel, E. & Nicholson, B. (2005). Small Firms and Offshore Software Outsourcing: High Transaction Costs and Their Mitigation (2005). *Journal of Global Information Management*, 13 (3), 33-54.
- Chesbrough, H.W. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Harvard Business School Press, Boston

- Clifton, N., Keast, R., Pickernel, D. & Senior, M. (2010). Network structure, knowledge governance, and firm performance: evidence from innovation networks and SMEs in the UK. *Growth and Change*, 41 (3), 337-373.
- Coase, R.H. (1937). The nature of the firm, *Economica*, 4 (16), 386-405.
- Contractor, F.J.; Kumar, V.; Kundu, S.K. & Pedersen, T. (2010). Reconceptualizing the Firm in a World of Outsourcing and Offshoring: The Organizational and Geographical Relocation of High-Value Company Functions. *Journal of Management Studies*, 47 (8), 1417-1433.
- Devos, J., Van Landeghem, H. & Deschoolmeester, D. (2009). IT Governance in SMEs: Trust or control? *Information Systems*, 301, 135-149.
- Devos, J., Van Landeghem, H. & Deschoolmeester, D. (2012). Rethinking IT governance for SMEs. *Industrial Management & Data Systems*, 112 (2), 206-223.
- Doh, J.P. (2005). Offshore outsourcing: implications for international business and strategic management theory and practice. *Journal of Management Studies*, 42 (3), 695-704.
- Duncan, P., Wright, J., Duncan, D. & Wiggins, A. (2009). Strategic IS/IM in Context in *Strategic Information Systems Management: Priorities, procedures & policy*. K. Grant, R. Hackney and D. Edgar, (Eds.). London: Thomson/Cengage Learning.
- Dunning, J.H. (1988). The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions. *Journal of International Business Studies*, 19 (1), 1-31.
- Dunning, J.H. (2001), The eclectic (OLI) paradigm of international production: past, present and future, *International Journal of the Economics of Business*, 8 (2), 173-190.
- Dyer, J. & Singh H. (1998). The relational view: cooperative strategy and sources of interorganizationl competitive advantage, *Academy of Management Review*, 23 (4), 660-679.
- European Commission (2012). Small and medium-sized enterprises (SMEs) What is an SME?, http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm, accessed 12th July 2012.
- Fingar, P. (2006). Extreme Competition. Meghan-Kiffer Press, Tampa, Florida, USA.
- Gartner (2008). Gartner on Outsourcing, 2008-2009.
- Gellert, F.J. & Velthuisen, H. (2012). Offshoring: a matter of bridging cultural differences. Draft paper.
- Gottfredson, M., Puryear, R. & Phillips, S. (2005). Strategic Sourcing: from periphery to the core. *Harvard Business Review*, February 2005, 132-139.
- Grimpe, C. & Kaiser, U. (2010). Balancing internal and external knowledge acquisition: the gains and pains from R&D outsourcing. *Journal of Management Studies*. 47(8), 1483-1509.

- Hätönen, J. & Eriksson, T. (2009). 30+ years of research and practice of outsourcing – Exploring the past and anticipating the future. *Journal of International Management*, 15, 142-155.
- Hätönen, J. (2009). Making the locational choice: a case approach to the development of a theory of offshore outsourcing and internationalization. *Journal of International Management*, 15, 61-76.
- Inkpen, A.C. & Tsang, E.W.K. (2005). Social Capital, Networks, and Knowledge Transfer. *Academy of Management Review*, 30, 146-165.
- Jones, C., Hesterly, W.S., & Borgatti, S.P. (1997). A General Theory of Network Governance: Exchange Conditions and Social Mechanisms, *Academy of Management Review*, 22(4), 911-945.
- Kedia, B.L. & Lahiri, S. (2007). International sourcing of services: a partnership model. *Journal of International Management*, 13 (1), 22-37.
- Kraljic, P. (1983). Purchasing must become supply management, *Harvard Business Review*, 61(5), 109-117.
- Lahiri, S. & Kedia, B.L. (2009). The effects of internal resources and partnership quality on firm performance: an examination of Indian BPO service providers. *Journal of International Management*, 15 (2), 209-224.
- Mahaboob, H., Mahindra Satyam, Private communication, May 17, 2012.
- Malone, T.W. & Laubacher, R.J. (1998). *The Dawn of the E-Lance Economy*, [Harvard Business Review](#), September,
- McKnight, D.H.; Cummings, L.L. & Chervany, N.L. (1998). Initial Trustformation in New Organizational Relationships. *Academy of Management Review*, 23, 473-490.
- Minkov, M. & Hofstede, G. (2011). The evolution of Hofstede's doctrine. *Cross Cultural Management: An International Journal*, 18, 10-20.
- Miroudot, S., Lanz, R. & Ragoussis, A. (2009). Trade in intermediate goods and services. *OECD Trade Policy Working Papers*, No. 93, OECD Publishing.
- Oksanen, A. (2011). *Trust and its existence between client SME and offshore service provider*. Bachelor Thesis, Hanze University of Applied Sciences, Groningen.
- Perrini, F.; Russo, A. & Tencati, A. (2007). CSR Strategies of SMEs and Large Firms. Evidence from Italy. *Journal of Business Ethics*, 74, 285-300.
- Prahalad, C.K. & Hamel, G. (1990). The core competence of the corporation, *Harvard Business Review*, 68 (3) 79–91.
- Prahalad, C.K. & Krishnan, M.S. (2008). *The New Age of Innovation*. McGraw-Hill
- QS Advisory (2012). Global Sourcing: Mid-Tier Offshore Providers. www.qsadvisory.com

- Reynolds, P., Hay, M. & Camp, S. (1999). Global entrepreneurship monitor. Wellesley, MA. Ewing M Kauffman Foundation Babson College.
- Rottman, J.W. (2008). Successful knowledge transfer within offshore supplier networks: a case study exploring social capital in strategic alliances. *Journal of Information Technology*, 23, 31–43.
- Russo, A. & Perrini, F. (2009). Investigating Stakeholder Theory and Social Capital: CSR in Large Firms and SMEs. *Journal of Business Ethics*, 91, 207-221.
- Stel, F. (2011). *Improving the performance of co-innovation alliances*. Thesis. Tilburg University.
- Uimonen, A. (2011) Key capabilities in IT SME offshoring. Bachelor Thesis, Hanze University of Applied Sciences, Groningen.
- Val IT (2008). Enterprise Value: Governance of IT Investments, The Val IT Framework 2.0 Extract, IT Governance Institute, www.itgi.org, 2008.
- Weimer, J. & Paape, J. (1999). A Taxonomy of Systems of Corporate Governance. *Corporate Governance*, 2(7), 152-166.
- Willcocks, L.P. & Craig, A.S. (2008). The Outsourcing Enterprise Step-Change: Collaborating To Innovate, Logica, September 2008.
- Willcocks, L.P. & Craig, A.S. (2010) “*The Outsourcing Enterprise Outsourcing in difficult times: Releasing cost but maintaining control*”. www.logica.com, accessed April 2011.



Ondernemerschap

Contact
Kenniscentrum Ondernemerschap
Zernikeplein 7
9747 AS Groningen
050 595 2070
kenniscentrumondernemerschap@org.hanze.nl